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August 7, 1998

VIA HAND-DELIVERY

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W., Room 222
Washington, D.C. 20554

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AUG - 7 1998

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Re: In the Matter of 1998 Biennial Regulatory Review - Amendment of Part 18 of the Commission's Rules to Update Regulations for RF Lighting Devices; ET Docket No. 98-42

Dear Mr. Caton:

Please find enclosed for filing in the above-referenced matter an original and five copies of the Reply Comments of SpectraLink Corporation. Also enclosed is an extra copy to file-stamp and return.

Thank you for your attention to this matter.

Sincerely,



William B. Wilhelm, Jr.
Antony Hansel

Counsel for SpectraLink Corporation

Enclosure

cc: Attached Service List

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20580**

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AUG - 7 1998

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)

1998 Biennial Regulatory Review -)
Amendment of Part 18 of the)
Commission's Rules to Update)
Regulations for RF Lighting Devices)
_____)

ET Docket No. 98-42

**REPLY COMMENTS OF
SPECTRALINK CORPORATION**

SpectraLink Corporation ("SpectraLink"), pursuant to the Federal Communications Commission's ("FCC" or "Commission") rules, hereby submits its Reply Comments in the above-captioned rulemaking proceeding.^{1/} In this proceeding, the Commission seeks to reduce regulatory burdens and to support the introduction of new radio frequency ("RF") lighting devices, while ensuring that spectrum-based communications services continue to be protected from interference. SpectraLink's Reply Comments address the serious interference potential of the high frequency RF lighting devices with unlicensed Part 15 technologies in the 2400 MHz band (2400-2500 MHz).

^{1/} *In the Matter of 1998 Biennial Regulatory Review - Amendment of Part 18 of the Commission's Rules to Update Regulations for RF Lighting Devices, Notice of Proposed Rulemaking, ET Docket No. 98-42 (Rel. April 9, 1998) ("Notice").*

I. STATEMENT OF INTEREST

SpectraLink was founded in 1989 to meet the existing market demand for a communications product that could provide wireless telephone communications as an adjunct to the business community's existing PBX and Centrex telephone systems. From its inception, SpectraLink has invested substantial amounts of human and financial resources designing, manufacturing, and marketing the SpectraLink Wireless Telephone System ("WTS"). The SpectraLink WTS is an indoor micro-cellular telephone system designed to function as an extension to an individual's desk phone, and operates in the 902-928 MHz frequency band as a spread spectrum radio frequency device pursuant to Part 15 of the Commission's Rules. Because SpectraLink's product conforms with the FCC's Part 15 Rules and regulations for unlicensed use, it meets the business community's market demand for uncomplicated, reasonably priced, reliable, high-quality wireless telephony today.

SpectraLink expects it will market a wireless telephone product for the 2400 - 2483 MHz band within the next 12 months. SpectraLink is an active member of numerous wireless telephony industry standards setting groups including the IEEE, the Part 15 Coalition, and the WINForum. Consequently, SpectraLink has a direct interest in the serious interference potential of the RF lighting devices with unlicensed Part 15 technologies in the 2400 MHz band.

II. DISCUSSION

SpectraLink generally supports the comments filed by the Part 15 Coalition, Metricom, Inc. ("Metricom"), Aironet Wireless Communications, Inc. ("Aironet"), Symbol Technologies, Inc. ("Symbol"), 3Com Corporation ("3Com"), the IEEE 802 LAN/MAN Standards Committee ("IEEE"), and the Wireless LAN Alliance ("WLANA"), which support the continued shared use of

the 2400 MHz band by the large number of Part 15 devices currently functioning there. In particular, SpectraLink agrees that both in-band radiation limits, as well as out-of-band radiation limits, should be adopted for RF lighting devices, and the measurement procedures used to determine whether RF lighting devices comply with these limits should mirror the procedures used for Part 15 devices.

A. The Majority of Parties Support the Commission's Radiation Limits Above 1 GHz

SpectraLink concurs with the majority of parties commenting^{2/} on the Commission's Notice that out-of-band radiation limits identical to the limits already in place for digital devices should be adopted for RF lighting devices above 1 GHz. Doing so would promote consistency in emission levels among electronic devices. Accordingly, the Commission should reject Fusion Lighting's ("Fusion") suggestion that more lenient field strength limits, similar to those for microwave ovens, be adopted for RF lighting devices.^{3/}

Fusion's suggestion places a misguided correlation between RF lighting devices and microwave ovens. As the comments of the Part 15 Coalition, IEEE, CD Radio, and Metricom indicate, RF lighting devices will become much more widespread than microwave ovens, in terms of both location and usage.^{4/} If the Commission were to relax the proposed radiation limits for RF

^{2/} The Part 15 Coalition Comments at 4, Metricom Comments at 2, Aironet Comments at 1, IEEE Comments at 4, D.L.S. Electronic Systems, Inc. ("DLS") Comments at 2, Adtran, Inc. ("Adtran") Comments at 3, General Electric Company ("GE") Comments at 7, the National Electrical Manufacturers Association ("NEMA") Comments at 4, and WLANA Comments at 3.

^{3/} Fusion Comments at 7. (In fact, several parties submit that even the Commission's proposed limits may not be adequate to protect many radio services from the unique characteristics of RF lighting devices. Satellite CD Radio, Inc. ("CD Radio") Comments at 9, American Mobile Radio Corporation ("AMRC") Comments at 2, and the American Radio Relay League ("Radio League") Comments at 6.)

^{4/} The Part 15 Coalition Comments at 4, IEEE Comments at 6, CD Radio Comments at 10, and
(continued...)

lighting devices, it would essentially be discounting the high proliferation of these devices and their potential for continuous use, as well as undermining the human and financial investments in Part 15 technology.

B. In-band Radiation Limits Should Be Adopted

SpectraLink concurs with the comments filed by Aironet, Adtran, Metricom, Symbol, the Part 15 Coalition, and 3Com, advising that in-band radiation emission limits should be adopted for RF lighting devices.^{5/} In addition to the substantial interference that RF lighting devices may cause to other operations in the 2400 MHz band, including Part 15 operations, SpectraLink urges the Commission to also consider Metricom's warning against the possible substantial and adverse effects resulting from human exposure to RF radiation if no in-band radiation limits are adopted.^{6/} Specifically, SpectraLink agrees that the numerical in-band limits applying to Part 15 Class A and B digital equipment should be adopted as proposed by the Part 15 Coalition, 3Com, and Symbol.

Fusion and NEMA contend that no in-band radiation limits should be applied for RF lighting devices based on historical reasons.^{7/} Similarly, GE claims that since there are already devices operating in the 2400 MHz band without in-band radiation limits, no in-band limit should apply to RF lighting devices.^{8/} The Commission should reject these simple historical arguments. These

^{4/}(...continued)

Metricom Comments at 3.

^{5/} Aironet Comments at 2, Adtran Comments at 4, Metricom Comments at 5, Symbol Comments at 5, the Part 15 Coalition Comments at 4, and 3Com Comments at 5.

^{6/} Metricom Comments at 8.

^{7/} Fusion Comments at 13 and NEMA Comments at 4.

^{8/} GE Comments at 7.

arguments discount the fact that technology is in a constant state of change and that the Commission's rules should be crafted to anticipate the resulting affect of technological change on surrounding conditions. As the industry evolves, the Commission must simultaneously develop and adapt its rules and regulations to address the changing environment. Accordingly, this Commission should take this opportunity to prevent the potential interference from new RF lighting devices to other spectrum-based communications services operating in the 2400 MHz band.

Fusion also suggests that magnetron-based lighting technology does not present a threat of harmful interference to mobile satellite services ("MSS").^{9/} Fusion's comments, however, fail to address interference with other operations in the 2400 MHz band, particularly Part 15 products. SpectraLink agrees with the comments of Metricom, the Part 15 Coalition, Symbol, and 3Com that Part 15 technologies provide significant and cost-effective communications solutions.^{10/} This Commission has consistently recognized the importance of unlicensed Part 15 technologies and must take the use of the 2400 MHz band by unlicensed operations into consideration when promulgating rules for microwave lighting devices.

C. Measurement Procedures

Finally, SpectraLink agrees with IEEE, WLANA, 3Com, and Symbol that the radiated emission limits for RF lighting devices should model those applied to Part 15 products.^{11/} RF lighting devices should be required to meet both the average field strength levels as well as the peak

^{9/} Fusion Comments at 12.

^{10/} Metricom Comments at 5, the Part 15 Coalition Comments at 2, Symbol Comments at 2, and 3Com Comments at 2.

^{11/} IEEE Comments at 4, WLANA Comments at 3, 3Com Comments at 5, and Symbol Comments at 5.

envelop power limit. Likewise, the measurement procedures used to measure these limits should mirror the procedures used for Part 15 devices.

III. CONCLUSION

For the foregoing reasons, SpectraLink urges the Commission to adopt both in-band radiation limits, as well as out-of-band radiation limits, for RF lighting devices, and require that RF lighting devices comply with radiation limits and measurement procedures used for Part 15 devices.

Respectfully Submitted,

SPECTRALINK CORPORATION

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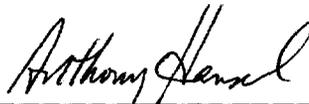
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Dated: August 7, 1998

CERTIFICATE OF SERVICE

I, Anthony Hansel, do hereby certify on this 7th day of August, 1998, that a copy of the foregoing Reply Comments of SpectraLink Corporation, ET Docket No. 98-42, was served via courier on the party named below, and via first-class mail on the parties named on the attached list.

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